

ABSTRACT

There is provided a stainless steel wire having both excellent corrosion resistance and an excellent fatigue strength while being fabricable with high productivity.

A stainless steel wire consists of 0.01 to 0.25 mass % C, 0.01 to 0.25 mass % N, 0.4 to 4.0 mass % Mn, 16 to 25 mass % Cr, 8.0 to 14.0% Ni and the balance Fe with impurities, wherein the C+N content satisfies $0.15 \text{ mass \%} \leq \text{C+N} \leq 0.35 \text{ mass \%}$. The stainless steel wire contains 15 vol.% martensite phase induced by a drawing and the balance austenite phase and has a texture which causes the austenite phase to exhibit diffraction intensities satisfying both $I(200)/I(111) \geq 2.0$ and $I(220)/I(111) \geq 3.0$ by X-ray diffraction in the longitudinal direction of the steel wire.